

F. Recycling Agent.

The recycling agent shall meet the following:

Properties	Test Method	Requirements
Viscosity, 140°F, cSt	ASTM D-445	200-800
Flash Point, °F., C.O.C.	AASHTO T-48	425, Minimum
Solubility in Trichloroethylene, min. %	ASTM D-4	99.0
Saturates, max. %		30
Thin Film Oven Test	AASHTO T-179	
Loss of Heating, %		4.0%, max.
Viscosity, 140°F, cSt		Maximum of 3 time the orig. viscosity

- G. Slow-Curing Cutback Asphalt.** Slow-curing cutback asphalt shall meet ASTM D-2026, except that the minimum Flash Point for the SC 800 will be 240°F.

SECTION 820 FLY ASH

820.01 GENERAL.

Fly ash shall meet the following for the specific type of work:

Type of Work	Specification
Portland Cement Concrete	AASHTO M-295
Lime Fly Ash Treated Subgrade	ASTM C-593
Econocrete	AASHTO M-295
Aggregate Base	ASTM C-593

Sampling and testing all fly ash shall be at the Contractor's expense.

The requirement for loss on ignition in AASHTO M-295 (table 1 chemical requirements) is modified from 5.0% to 2.0% max. Also the optional requirements in Table 2 are required.

Fly ash shall be from an electrical generating plant using a single coal source. Fly ash produced at plants where the limestone injection process is used for controlling air pollutants will be considered unacceptable for use in Portland Cement Concrete. The Contractor shall provide weather-tight storage facilities for the fly ash either at the source or on the Project site.

Fly ash delivered to the Department and the Project shall be accompanied by a Certificate of Compliance based on a testing program which ensures a satisfactory and uniform product relative to these Specification requirements. The Certificate of Compliance covering material shipped in each car or tank truck shall be furnished in triplicate at the time of shipment. The original is to be furnished to the Materials and Research Engineer, Department of Transportation, 300 Airport Road, Bismarck, North Dakota 58504, with one copy going to the consignee and one copy to the Project Engineer.

The certificate shall contain the following information:

- A. Project number and name of Contractor.
- B. Fly ash source by name of company and location of plant.
- C. Quantity contained in tank truck or railroad car.
- D. Gross, tare, and net weight if shipped by truck.
- E. Car initials and number or tank truck number.
- F. Date of shipment.
- G. Statement that the material meets all Specification requirements.
- H. Signature of the person having legal authority to bind the supplier.

SECTION 822

PENETRATING WATER REPELLENT

822.01 GENERAL.

The penetrating water repellent treatment solution shall consist of an Organo Silicon compound dissolved in a suitable solvent carrier that, when applied, produces a hydrophobic surface covalently bonded to the concrete.

The Organo Silicon compound shall be one of the following:

ALKYL-ALKOXY-SILANE

OLIGOMEROUS ALKYL-ALKOXY-SILOXANE

The solvent will leave less than 1% residue upon evaporation.

The solution shall contain a minimum of 40% solids. The material shall be certified to meet or exceed the performance criteria listed below based on a single application of the solution according to the manufacturer's recommended rate of coverage.